

CLAIMS

1. (currently amended) A DSL communication method for interconnecting a user and a center by using a 2-wire telephone line and a DSL communications technology so that said user and said center perform an intercommunication, the method comprising the steps of:

monitoring a signal-to-noise ratio of an accepted DSL;

judging whether or not said signal-to-noise ratio is within a predetermined range; and

~~interrupting~~ causing a DSL interface containing unit to interrupt said intercommunication once and to thereafter reconnect ~~reconnecting~~ said user and said center, when said signal-to-noise ratio is judged not to be within said predetermined range for a duration longer than a reference time, wherein in the reconnecting process said DSL containing unit performs a handshake and an initialization so as to establish a negotiation for performing intercommunication with a DSL interface containing unit on the other side of the 2-wire telephone line.

2. (original) The DSL communication method as claimed in claim 1, further comprising the step of arbitrarily setting an upper limit and a lower limit defining said predetermine range.

3. (original) The DSL communication method as claimed in claim 1, further comprising the reference time setting step of arbitrarily setting said reference time.

4. (original) The DSL communication method as claimed in claim 2, further comprising the reference time setting step of arbitrarily setting said reference time.

5. (original) The DSL communication method as claimed in claim 3, wherein said reference time setting step sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than an upper limit of said predetermined range, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than an lower limit of said predetermined range, the first reference time being identical to the second reference time.

6. (original) The DSL communication method as claimed in claim 4, wherein said reference time setting step sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than said upper limit, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than said lower limit, the first reference time being identical to the second reference time.

7. (original) The DSL communication method as claimed in claim 3, wherein said reference time setting step sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than an upper limit of said predetermined range, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than an lower limit of said predetermined range, the first reference time being different from the second reference time.

8. (original) The DSL communication method as claimed in claim 4, wherein said reference time setting step sets a first reference time to be compared with a duration during

which said signal-to-noise ratio is higher than said upper limit, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than said lower limit, the first reference time being different from the second reference time..

9. (currently amended) A DSL communication device comprising:

a DSL-interface containing unit interconnecting a user and a center by using a 2-wire telephone line and a DSL communications technology so as to perform an intercommunication therebetween;

a line-quality monitoring unit monitoring a signal-to-noise ratio of an accepted DSL;

a line-quality judging unit judging whether or not said signal-to-noise ratio is within a predetermined range; and

a controlling unit causing said DSL-interface containing unit to interrupt said intercommunication once and to reconnect said user and said center thereafter, when said signal-to-noise ratio is judged not to be within said predetermined range for a duration longer than a reference time, wherein in the reconnecting process said DSL containing unit performs a handshake and an initialization so as to establish a negotiation for performing intercommunication with a DSL interface containing unit on the other side of the 2-wire telephone line.

10. (original) The DSL communication device as claimed in claim 9, further comprising a range setting unit arbitrarily setting an upper limit and a lower limit of said predetermine range.

11. (original) The DSL communication device as claimed in claim 9, further comprising a reference time setting unit arbitrarily setting said reference time.

12. (original) The DSL communication device as claimed in claim 10, further comprising a reference time setting unit arbitrarily setting said reference time.

13. (original) The DSL communication device as claimed in claim 11, wherein said reference time setting unit sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than an upper limit of said predetermined range, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than a lower limit of said predetermined range, the first reference time being identical to the second reference time.

14. (original) The DSL communication device as claimed in claim 12, wherein said reference time setting unit sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than said upper limit, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than said lower limit, the first reference time being identical to the second reference time.

15. (original) The DSL communication device as claimed in claim 11, wherein said reference time setting unit sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than an upper limit of said predetermined range, and sets a second reference time to be compared with a duration during which said signal-to-noise

ratio is lower than an lower limit of said predetermined range, the first reference time being different from the second reference time.

16. (original) The DSL communication device as claimed in claim 12, wherein said reference time setting unit sets a first reference time to be compared with a duration during which said signal-to-noise ratio is higher than said upper limit, and sets a second reference time to be compared with a duration during which said signal-to-noise ratio is lower than said lower limit, the first reference time being different from the second reference time.